

REMARKS

The claims have been amended for clarity. New claim 17 has been added. Support may be found on page 4, line 1, page 5, line 6, and page 6, last line. No new matter has been added.

The examiner maintains the provisional obviousness-type double patent rejection of the claims over copending commonly assigned application Serial Nos. 10/779,492 and 10/779,505. The examiner urges that the claimed subject matter represents obvious variants and maintains the position that there is significant overlap in scope. Applicants disagree.

The claims of the subject application are directed to adhesive formulations containing a radial block copolymer (PS-PI-PB)_nX in amounts of less than 15 wt %. In contrast, the claims of Serial No. 10/779,505 are directed to adhesive formulations containing a radial block copolymer (PS-PI-PB)_nX in amounts of from 15 wt % to about 35 wt %. The claims of Serial No. 10/779,492 are directed to adhesive formulations containing a radial block copolymer (PS-PI)_nX in amounts of less than 15 wt %. The claims of the subject application are not obvious variations of the invention claimed in application Serial Nos. 10/779,492 and 10/779,505. Moreover, no overlap exists.

Applicants submit that the claims of the subject application are not obvious variations of the invention claimed in application Serial Nos. 10/779,492 or 10/779,505 and that the obviousness type double patenting rejection is improper. Withdrawal is requested.

Claims 1-4, 6-9, 11-14 and 16 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Komatsuzaki et al. (U.S. 6,534,593) or Vaughan et al. (U.S. 6,531,544) or Kueppers (U.S. 5,939,483) or Diehl et al (U.S. 5,292,819) or Asahaa et al (U.S. 5,532,319).

Applicants disagree.

Komatsuzaki et al. disclose block copolymer compositions used as a pressure sensitive ingredient in pressure sensitive adhesives. As described in col. 3, lines 39-43, the styrene content is in the range of 5 to 24% by weight, more preferably 10-18 % by weight, and more preferable 11 to 14 % by weight. As described in the paragraph bridging cols. 3 and 4, see, in particular, col. 4, lines 3-5, unduly high levels of styrene will result in loss of tack. From the information set forth in col. 11, lines 7-11, it can be seen that the percent of SIS used in the formulation of Komatsuzaki et al. is from 16.7 to 90.9 %. The pressure sensitive hot melt adhesive of Komatsuzaki et al. is used for the production of various pressure sensitive adhesive tapes, labels, deducting rollers and the like.

The adhesive claimed by applicants does not require pressure sensitive properties. Applicants claimed adhesive comprises a (PS-PI-PB)_nX radial block copolymer which is present in the adhesive in amounts of less than 15 wt %. The radial block copolymer required for use in the practice of applicants' invention has a styrene content of from 25 wt % to about 50 wt %. Such a high level of styrene will lead to a high modulus which is not useful in pressure sensitive adhesives. There is no disclosure or suggestion in the Komatsuzaki et al. patent that would motivate the skilled artisan modify the formulation Komatsuzaki et al. for use in the manufacture of disposable absorbent articles, let alone disposable elastic articles, which require high creep resistance. The pressure sensitive adhesives of Komatsuzaki et al. would not be useful as an elastic attachment adhesive in non woven applications.

Applicants submit that the claimed subject matter is not obvious over Komatsuzaki et al. Withdrawal is requested.

Vaughan et al. disclose hot melt adhesives that can be used in the manufacture of disposable absorbent articles and which is in contact with an oil-based skin care ingredient. I.e., the adhesive is used to bond substrates that contain or are coated with oil-based ingredients. The adhesives of Vaughan et al. is described as containing 15 to 45 wt % of a block copolymer, 50 to 80 wt % of a tackifier and 0 to 10 wt % of a plasticizer. The block copolymer is preferably used in amounts greater than about 20 wt %, has a styrene content of less than 30 wt %, more preferably less than 20, even more preferably less than 15 wt % (col. 4, lines 8-10) and contains a diblock content of at least about 20 wt %, more preferably a least about 30 wt % (col. 2, line 22, and col. 4 lines 13-16). The higher diblock percentage in the block copolymer is more preferable than the lower di-block, which is inapposite of applicants' invention. Again, applicants claimed adhesive comprises a (PS-PI-PB)_nX radial block copolymer which is present in the adhesive in amounts of less than 15 wt %. The radial block copolymer required for use in the practice of applicants' invention has a styrene content of from 25 wt % to about 50 wt %.

Applicants submit that the claimed subject matter is not obvious over Vaughan et al. Withdrawal is requested.

Kueppers describes an adhesive used in packaging applications. The viscosity of the Kueppers adhesive, typically less than about 1500 cps at about 150°C, would not be useful as an elastic attachment adhesive and would not render obvious the subject matter claimed by applicants. See Table 1 (col. 10) of Kueppers, in which the adhesive examples are reported to have viscosities ranging from 1100 to 1470 cPs at 150°C. In contrast, applicants' formulation set forth in Table 1 (page 13 of applicants' specification) shows a viscosity at 300°F (150°C)

of 4200 cPs. The examiner has not pointed to any disclosure that would motivate the skilled artisan to make the adhesive claimed by applicants.

The claimed invention is not obvious over Kueppers. Withdrawal of this rejection is requested.

Diehl fails to disclose the presence of a linear triblock copolymer, and the examiner fails to provide evidence that linear triblock copolymers would be a by-product present in the manufactured radial block copolymer.

Applicants submit that the claimed subject matter is not obvious over Diehl. Withdrawal is requested.

Asahara discloses block copolymer compositions having specific combinations and types of block copolymers and pressure sensitive adhesive prepared using the block copolymer compositions of the invention as the base polymer component of the adhesive. The block copolymer compositions are formulated for pressure sensitive applications and comprise 20-90 wt % of a of a (S-B-I)_n-X and/or (S-I-B)_n-X block copolymer where n=2, 3 or 4 and from 80-10 of a SBI or SIB diblock. While Asahara discloses compositions that contain (S-B-I)_n-X wherein x is 2-4, there is no exemplification, or even a general disclosure of the use of any polymer composition comprising (S-B-I)₃-X let alone in amounts of less than 15 wt %. There is no disclosure of use of less than wt % of (S-B-I)₃-X with not more that about 20 wt % of a linear triblock as disclosed and claimed by applicants. A polymer of the type disclosed for use in applicants claimed hot melt adhesive is not disclosed by Asahara.

Applicants submit that the claimed subject matter is not obvious over Asahara. Withdrawal is requested.

The claims have also been rejected under 35 U.S.C. § 112, first paragraph. It is the examiner's position that the claims require no radial block copolymer. Applicants disagree. The claims require a radial block copolymer, a linear triblock copolymer and a liquid plastisizer. The claim then further limit that these components are present in not more than the recited amounts. Clearly the specification provides support for the claimed subject matter.

Withdrawal of the Section 112 rejection is requested.

Early and favorable action is solicited.

Respectfully submitted,

/Cynthia L. Foulke/

Cynthia L. Foulke
Reg. No. 32,364

National Starch and Chemical Company
P. O. Box 6500
Bridgewater, New Jersey 08807-0500
Telephone No.: 908-685-7483

July 10, 2008